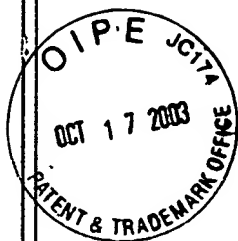


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# 19  
10/29/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	) <b>BEFORE THE BOARD OF PATENT</b>
Kazuhiko MARUYAMA	) <b>APPEALS AND INTERFERENCES</b>
Serial No. 09/355,732	)
Filed: August 4, 1999	) Appeal No.:
For: METHOD OF RADIO CHANNEL	)
ASSIGNMENT FOR RADIO	) Examiner: Lee Nguyen
COMMUNICATION	)
	) Group Art Unit: 2682
	)
	) June 11, 2003
	)

**REPLY BRIEF**

Assistant Commissioner for Patents  
Washington, D.C. 20231

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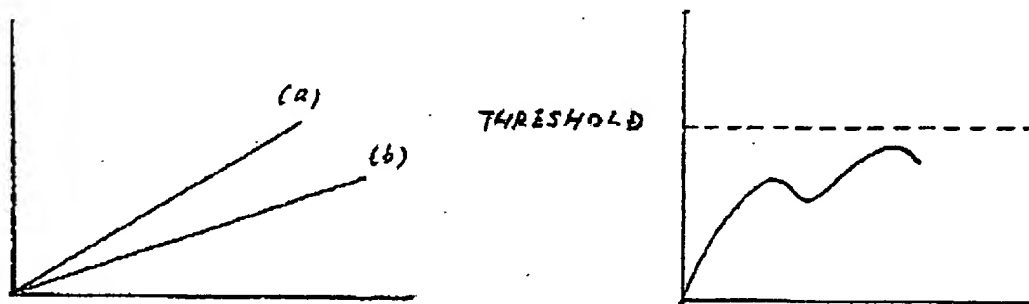
Dear Sir:

This is a reply to the Examiner's Answer dated April 11, 2003, pursuant to 37 CFR § 1.193(b). The withdrawal of the rejection of all claims except claims 13, 14 and 15 is noted.

Regarding the continued rejection of claim 13, the Answer argues that in Kamm, "as the packet size (the stored data) increases over a number of time slots, an additional channel is allocated." Answer at 6-7. The Answer concludes from this assertion that "there is a rate

of increasing or decreasing of stored data in Kamm." The Answer misapprehends what is set forth in claim 13.

Claim 13 requires that a base station determine a number of radio channels to be assigned to a first radio terminal according to the rate of increase of stored data to be transmitted per unit time. In contrast, Kamm determines whether the average packet size of



data in a forward channel is greater than or equal to the number of slots that have been allocated. Col. 9, l. 62- col. 10, l. 3. As shown in the diagram on the right above, because Kamm compares average packet size with a threshold, it is possible for there to exist very large "spikes" in the rate of data increase per unit time, yet because Kamm averages these out, the average value of the packet size may never exceed the threshold. Consequently, additional slot allocation in Kamm clearly is not affected by the rate of increase of stored data to be transmitted per unit time.

To the contrary, as shown in the diagram on the left above, the instantaneous (i.e. "per unit time") rate of increase of the stored data to be transmitted as determined between two adjacent time units (a) and (b) provides a more accurate estimation of an increasing

amount of data to be transmitted, necessitating a change in channel assignment as set forth in claim 13.

The Examiner's Answer makes similar errors with respect to the analysis of the Dunn and Nakagoshi references vis-a-vis claims 14 and 15. For example, it is not disputed that "the size of the message stored in Dunn is not fixed, but it (sic) varies up and down." If message or data packet size did not vary, obviously there would never be a need to adjust channel or slot allocation. However, it does not follow from the mere observation of the fact that data amounts vary, that Dunn measures or determines the rate of increase of stored data per unit time as required by claim 14.

With respect to claim 15, the Answer asserts that all of the handover methods described in Nakagoshi require "information exchange between the base stations" such that "the same set of channels can be used by the mobile station." Claim 15, however, does not set forth merely "information exchange" between base stations, but instead requires that a first base station transmit to a second base station upon occurrence of a hand-over of communication with a mobile terminal, the number of radio channels that were assigned to the terminal such that the second base station may assign an equal number of channels to the terminal upon completion of the hand-over. As the Answer admits, in Nakagoshi the same set of channels is used by the terminal, such that there is no assignment of radio channels by the switched-to base station. As described by Nakagoshi, the "information exchange" between base stations consists only of the identification of the base station to be transferred, or the identification of an available radio channel for transfer. Nakagoshi at col.

6, ll. 53-64. The Examiner's Answer thus fails to establish a *prima facie* case of unpatentability.

### CONCLUSION

In view of the foregoing, and the arguments in the main brief filed September 5, 2002, claims 13-15 are submitted to be directed to a new and unobvious method for assigning radio communication channels between a base station and a plurality of radio terminals, which is not taught or suggested by the prior art. The Honorable Board is respectfully requested to reverse all grounds of rejection and to direct the passage of this application to issue.

Please charge any fee or credit any overpayment pursuant to 37 CFR 1.16 or 1.17 to Deposit Account No. 02-2135.

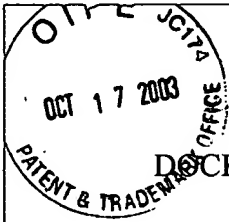
Respectfully submitted,

ROTHWELL, FIGG, ERNST & MANBECK, p.c.

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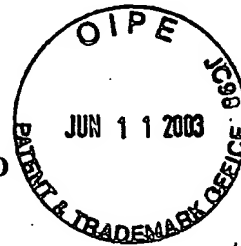
Serial No. 09/355,732 ✓

Filed: August 4, 1999 ✓

By: Kazuhiko MARUYAMA ✓

Attorney's & Typist's Initials: VMD

Due Date: 6/11/03 ✓



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